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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,996	12/09/2002	Gregory S. Patterson	U01-0065(14)	6672
24239	7590	10/17/2005	EXAMINER	
MOORE & VAN ALLEN PLLC P.O. BOX 13706 Research Triangle Park, NC 27709			MILORD, MARCEAU	
			ART UNIT	PAPER NUMBER
			2682	

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/065,996

Applicant(s)

PATTERSON, GREGORY S.

Examiner

Marceau Milord

Art Unit

2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-19 and 28 is/are allowed.
- 6) ☒ Claim(s) 20 and 24-27 is/are rejected.
- 7) ☒ Claim(s) 21-23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 20, 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (US Patent No 6553119 B1) in view of Hansson (US Patent No 6819946 B2)

Regarding claim 20, Mori discloses a mobile terminal (figs. 3-4) providing sound pressure level dissipation of sound from a transducer comprising a front housing having a listening area (col. 2, lines 55-67), an ear-sealing region within the listening area, a front face, and a rear face; a back housing mounted to the front housing to form an enclosure in which the transducer is disposed (col. 4, lines 5-35).

However, Mori does not specifically disclose the feature of a means for transmitting sound to the ear-sealing region and second means for transmitting sound from within the ear-sealing region to the listening area outside of the ear-sealing region.

On the other hand, Hansson, from the same field of endeavor, discloses an apparatus that is provided for controlling the source of sound emitted from a mobile terminal used in a wireless communication system. The apparatus comprises a housing defining first and second acoustic ports communicating with the exterior of the mobile terminal. A switch is disposed in the housing for movement between a first position where the switch covers the first port to substantially prevent sound produced by a speaker from passing to the exterior of the mobile terminal while allowing sound to pass from the second port. In the second position, the switch covers the second port to substantially prevent sound from passing through the second port to the exterior of the mobile terminal while allowing sound to pass from the first port. A controller distinguishes among the different operating modes of the mobile terminal and is operable to access a plurality of audio settings representative of the sound level to be emitted which is associated each operating mode. A motive device in communication with the controller moves the switch between the first positions to the second position for changing the source of sound from the mobile terminal depending on the operating mode (col. 2, line 26-col. 3, line 54). Furthermore, the housing includes a mouthpiece for inputting sound; an earpiece for receiving sound and it also defines several openings or acoustic ports for outputting sound (col. 4, lines 26-65). The audio interface comprises an electronic audio gain circuit for adjusting the audio characteristics of the speaker. The control program also operates to ensure that the sound level emitted from the acoustic port of the mobile terminal is appropriate for the current operating mode of the phone (col. 7, lines 1-43; col. 8, lines 2-38).

Clark et al also discloses a portable electronic device, such as a portable radiotelephone with a speaker assembly where the portable radiotelephone has a housing, which includes an

Art Unit: 2682

upper housing and a lower housing configured to carry at least one of a receiver and a transmitter. A speaker has a front side acoustically coupled to a first air space in front of an ear placement region of the upper housing. The speaker has a rear side acoustically coupled to a second air space. At least a first passage acoustically couples the first air space to a third air space that is substantially separated from the second air space. Speaker assembly includes a housing portion attached to a housing portion. A speaker is disposed between housing portions and has a front side that is substantially sealed and held in place with a spacer (col. 3, line 44- col. 4, line 56; col. 5, line 24- col. 6, line 11). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Clark to the modified system of Hansson and Mori in order to minimize the effect of ambient noise when operating in the receiver mode in a noisy environment.

Regarding claim 24, Mori as modified discloses a mobile terminal (figs. 3-4) providing sound pressure level dissipation of sound from a transducer comprising a front housing having a listening area (col. 2, lines 55-67), wherein the back housing comprises a rear external surface of the mobile terminal (col. 3, lines 9-45).

Regarding claim 25, Mori as modified discloses a mobile terminal (figs. 3-4) providing sound pressure level dissipation of sound from a transducer comprising a front housing having a listening area (col. 2, lines 55-67), wherein the back housing comprises a partition within the mobile terminal (col. 3, lines 15-55).

Regarding claims 26-27, Mori discloses a method for providing sound pressure dissipation of sound from a transducer in a mobile terminal (figs. 3-4), the mobile terminal having a front housing including a listening area and an ear-sealing region with the listening area

Art Unit: 2682

(col. 2, lines 55-67), and a back housing mounted to the front housing to form an enclosure in which the transducer is disposed (col. 3, lines 1-50; col. 4, lines 5-35).

However, Mori does not specifically disclose the steps of step of transmitting sound through a channel from inside the enclosure and within the ear-sealing region to the listening area outside the ear-sealing region; and transmitting sound through a port within the enclosure and within an ear sealing region to one end of the channel, and transmitting sound from the other end of the channel through a port opening to the listening area and outside the ear-sealing region.

On the other hand, Hansson, from the same field of endeavor, discloses an apparatus that is provided for controlling the source of sound emitted from a mobile terminal used in a wireless communication system. The apparatus comprises a housing defining first and second acoustic ports communicating with the exterior of the mobile terminal. A switch is disposed in the housing for movement between a first position where the switch covers the first port to substantially prevent sound produced by a speaker from passing to the exterior of the mobile terminal while allowing sound to pass from the second port. In the second position, the switch covers the second port to substantially prevent sound from passing through the second port to the exterior of the mobile terminal while allowing sound to pass from the first port. A controller distinguishes among the different operating modes of the mobile terminal and is operable to access a plurality of audio settings representative of the sound level to be emitted which is associated each operating mode. A motive device in communication with the controller moves the switch between the first positions to the second position for changing the source of sound from the mobile terminal depending on the operating mode (col. 2, line 26-col. 3, line 54). Furthermore, the housing includes a mouthpiece for inputting sound; an earpiece for receiving

Art Unit: 2682

sound and it also defines several openings or acoustic ports for outputting sound (col. 4, lines 26-65). The audio interface comprises an electronic audio gain circuit for adjusting the audio characteristics of the speaker. The control program also operates to ensure that the sound level emitted from the acoustic port of the mobile terminal is appropriate for the current operating mode of the phone (col. 7, lines 1-43; col. 8, lines 2-38).

Clark et al also discloses a portable electronic device, such as a portable radiotelephone with a speaker assembly where the portable radiotelephone has a housing, which includes an upper housing and a lower housing configured to carry at least one of a receiver and a transmitter. A speaker has a front side acoustically coupled to a first air space in front of an ear placement region of the upper housing. The speaker has a rear side acoustically coupled to a second air space. At least a first passage acoustically couples the first air space to a third air space that is substantially separated from the second air space. Speaker assembly includes a housing portion attached to a housing portion. A speaker is disposed between housing portions and has a front side that is substantially sealed and held in place with a spacer (col. 3, line 44-col. 4, line 56; col. 5, line 24- col. 6, line 11). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Clark to the modified system of Hansson and Mori in order to minimize the effect of ambient noise when operating in the receiver mode in a noisy environment.

#### Response to Arguments

2. Applicant's arguments with respect to claims 20, 24-27 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

3. Claims 21-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Allowable Subject Matter

4. Claims 1-19, 28 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marceau Milord whose telephone number is 571-272-7853. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on 571-272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Application/Control Number: 10/065,996

Page 8

Art Unit: 2682

MARCEAU MILORD

Marceau Milord

Primary Examiner

Art Unit 2682

*MMilord*  
MARCEAU MILORD  
PRIMARY EXAMINER